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## THE GEOLOGY OF LANGUAGE<sup>1</sup>

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Few of us pass through this vale of tears without stubbing our toes. I hate as much as you do to stub my toe; but if the stone that did the damage turned out to be a lump of gold-bearing quartz that had taken this method of attracting my attention, I think I should easily forgive the affront to my pet corn. Or even if the jolt were not administered by anything so precious as gold, there might still be a revelation in that bump that made the hurt worth while. I might look down and see signs of coal or oil or silver on my land, or some rare fossil might halt my attention, and whirl me back in imagination to the strange and far-off days when birds had teeth, when flying lizards as big as a military tank cruised about overhead in search of correspondingly gigantic bugs for breakfast, or curled up in the heat of the day for a snooze under the welcome shade of a tree-fern as tall as a house. But I am no geologist, and will not venture farther lest the biology class show me up or call me down; I only want to make the point that few if any of these profitable or merely interesting facts would be understood by one who knew nothing of geology. A landscape might be beautiful or it might be tame, but in the end it would be made up to him of dirt plus stones plus water, with a certain coating of green to make it smart and attractive. He could travel through the Connecticut Valley without once dreaming of the gigantic glacier that plowed the channel and left, as it melted, piles of earth and stone to form such natural bunkers for the trolley-cars as Stony Hill—though I only guess that Stony Hill was so formed. The Palisades of the Hudson, so far as the stone quarries have allowed them to remain, may have beauty even to the commercial substitute for a soul of the individual who dynamites them into building-stone or road-metal; but it is at least interesting to think of the day when the young earth split as it cooled, and the molten rock squeezed, white-

<sup>1</sup> Read before the Darwin Club of the Loomis Institute.

hot, through the crevice, for all the world as the white comes out of a cracked egg in the boiling. I need not go on; it is easy to prove that the earth is not only more useful but also vastly more entertaining to one who can read its life-history in its rocks and wrinkles.

In almost exactly the same way as one is helped to understand and use the earth by a knowledge of the rocks and minerals which lie imbedded therein, he is helped to use and understand English by a knowledge of the words of Latin and Greek origin which lie embedded in our daily speech. Someone has said that a little learning is a dangerous thing; but a very little learning in these two languages may prove a very useful thing. In a moment I am going to speak of some Latin words which are lying round, so to speak, like loose stones on a highway; but first I want to say something about Greek words. Scientific terms are very apt to be of Greek origin, and a very little Greek will often make clear and easily remembered words which otherwise would be mere jumbles of difficult sounds. I remember some years ago going to see my dentist, and finding him trying to coach his assistant to pass the state examination in dentistry. Neither he nor his pupil felt quite sure what was meant by the word *synthetic*, as we speak of *synthetic rubber* or a *synthetic ruby*. Half a year's study of Greek would surely have put them in possession of two Greek words which would have settled the matter instantly with absolute certainty, for they would then have known that *s-y-n* means "with" or "together" and that *t-h-e-t* means "put," while the final *-ic* is a common adjective suffix. A *synthetic ruby*, therefore, is one that is put together in the laboratory as the cook puts the ingredients of a cake together in the kitchen. I shall not yield now to the temptation to follow far the veins of Greek-laden ore in our rich English tongue; but did you ever without shuddering hear a person speak of "*mental telepathy*?" If you did not shudder, you ought to have done so, because *telepathy* by itself means "feeling at a distance," and the word *mental* adds nothing to the thought. The person who says "*mental telepathy*" is in the same unhappy class as one who says "old antiques," or describes something as "new and novel," or as "very unique," which means simply "very one."

Possibly it was in *The Varmint* that I read of that Lawrenceville teacher of Latin known as "the Roman"—an actual character by the way. One of his stock questions seems to have been "Gerund or gerundive?" Now, I suppose there is no piece of grammatical knowledge which seems less practical to the schoolboy than the knowledge of this distinction, and yet there are a number of gerundives in daily use, some of them, it is true, with their tails cropped like Söhnchen's,<sup>1</sup> but all of them doing good service nevertheless. I will insult you by reminding you of what you must know perfectly well, that the gerundive always has an *nd* in it, and that it is a verbal adjective which means that something is to be dealt with in whatever manner the verb-root describes. For instance, a memorandum is something to be remembered, agenda are things to be done, a maiden named Amanda is to be loved (if possible), propaganda are doctrines to be propagated—that is, made to spread like strawberry runners or quack-grass. Sometimes an author who is a better scholar than proofreader will print at the beginning of his book a list of *addenda et corrigenda*—that is, things to be added and corrected. Or the politicians may advocate a referendum, meaning thereby that the proposal is to be referred directly to the people for their approval. (A vote of this sort is sometimes called a plebiscite, which is just the Latin *plebiscitum*, vote of the plebs or common people.) Another gerundive which is sometimes inflicted on a helpless girl-baby is Miranda, which means that the bearer of this name is to be admired. Then there are a couple of gerundives which speak their Latin with an English accent, I mean tremendous, "to be trembled at," and stupendous, "to be stupefied at." The largest group of gerundives of the curtailed or Söhnchen class is found in mathematics, where we learn that a dividend is something to be divided, a subtrahend to be subtracted, a minuend to be diminished, a multiplicand to be multiplied; while the gerundive appears full-bloom in Q. E. D.—*quod erat demonstrandum*, "which was to be shown."

This school is named, for better or for worse, The Loomis Institute. What is an institute? Ask the Latinist—he knows that the

<sup>1</sup> A German police-dog belonging to the Headmaster and beloved by the boys. He was named in the ante-bellum days.

past participle of *instiuo*, "establish," is *institutus*, so both an institute and an institution mean something that is established or founded. Down at Lawrenceville they speak of their school as being on the John C. Green Foundation; they would mean much the same thing if they called it the John C. Green Institute. You arrived here, a trembling Freshman, via the New Haven Road. You had not been a Freshman very long before you could tell that *via* meant "by way of." With beating heart and quaking knees you approached Founders Hall and entered the vestibule, after a brief struggle during which you learned that our front doors do not open outwards as one would expect. Vestibule is Latin *vestibulum*, and means the same thing in both languages. Resisting the temptation to see what lay behind the doors labelled "Mr. Morse" and "Mr. Batchelder," you found yourself in the center of a long corridor; but if you took its derivation from *currere*, "to run," too seriously, and tried to train for the hundred therein, you may have learned that while the corridor might run from one end of the building to the other, you had better not. Finally you were shown up to the dormitory, and proud indeed was the moment in which you learned from your Latin instructor that dormitory came from *dormire*, and meant a sleeping-place; for there is a strong probability that without his aid you would have inferred that sleep was far from being the major sport in that jazz-ridden space.

You came here to be educated and instructed. No, they are not the same; and the French and Italians, both of whom, of course, speak an up-to-date Latin, recognize the difference. To educate, from *educō*, is to lead out or bring up, and refers to the development of character and manners—all those gracious ways which distinguish the gentleman from the boor, and all those noble qualities which make him shrink from cheap talk and unclean and selfish ideals. To instruct is another matter. A schoolboy whom I knew once translated the sentence, "*In medio colle Caesar triplicem aciem instruxit*," in this original fashion: "Halfway up the hill, Caesar instructed the triplets." But what Caesar really did, as every Sophomore knows, was to arrange his line of battle on that commanding height. Instruction is just arrangement, getting one's facts sorted out and neatly filed away in the brain, as I have lately

been doing to the horrendous mess that lay like a paper snow-drift on my desk.

I have had pupils who absolutely did not know the meaning of such a sentence as might appear in any newspaper: "It is suspected that last night's fire was of incendiary origin." But one cannot do much Latin without meeting the words *incendo*, "to set on fire," and *incendium*, the act of setting on fire or the fire itself; whence it appears that an incendiary is a fire-bug. Well, why not just say "fire-bug," and be satisfied? Because words are something like clothes, and while there are occasions where slang is as appropriate as blue jeans on the farm, there are other times when the man who can use only the copper coin of speech, as it were, is about as conspicuous as if he wore a pink four-in-hand with evening dress. You have doubtless observed that I am dealing in good advice; but I pray you to remember that that is part of my business, and not to lay it up against me.

To me it is something like having a light turned on a heap of objects which could be hardly distinguished in the dusk to know that street and stratum and strew and straw are all blood brothers, and contain the idea of laying flat, that data means things given, as we say in geometry, "to describe a circle about a *given* triangle," that perspicuous comes from *per*, "through," and the root *spic*, meaning "see," and that the word signifies easily seen through, while its running-mate, perspicacious, has a Latin suffix denoting the possession of a quality, and applies to persons having the gift of seeing through obscure facts; that exaggerate means to pile up, and aggravate, to add weight to—not to vex, as so many ignorantly suppose. It is even amusing that the ten simple numbers which we call digits take their name from *digitus*, "finger" or "toe," and mutely remind us that to perform arithmetical operations with the Roman numerals one must count on his fingers and his toes too, for all I know—if you don't believe me, try it; that a chemical retort is so called because its neck is twisted back, and that a retort in conversation turns the witty gibe back on the one who uttered it; that curriculum means a race-course, and does credit to the person who first applied the name to a list of studies in a school or college (although one may race snails or turtles as well

as horses and motor-cars); that the word college only accidentally means an institution of learning—an accident from which many so-called students earnestly strive to rescue it—its derivation being from *com* or *cum*, “with,” and *lego*, “choose,” so that it refers literally to any body of men chosen to act together for any purpose, as the Romans spoke of a college of praetors; that is, as we should say, a bench of judges, or as we hear certain clericals of high rank called a college of cardinals, or again, as we call those who cast the votes which choose the president an electoral college. But this discourse must not be suffered to run on and on; I will close by reminding you that derivation comes from *de*, “from,” and *rivus*, “a stream,” whence our word river. Such being the case, let us never so dishonor the word as even to imagine that the study of derivation can be dry. And even if you accuse me of shifting from geology to the navigation of rivers I shall not complain, if only my inconsistency may help to convince you that out of the forbidding rock of an unknown language there may gush living waters, if we are truly athirst for knowledge.